Vote Solar

Written Testimony of Claudia Eyzaguirre, The Vote Solar Initiative
Before the Connecticut General Assembly Energy and Technology Committee
Wednesday March 5th, 2008

Testimony in support of Raised Bill No. 5788
AN ACT ESTABLISHING A SOLAR ROOF PROGRAM

The following testimony is made on the behalf of the Vote Solar Initiative. The Vote Solar Initiative is a nonprofit organization with members throughout Connecticut and the U.S. that aims to address global warming and energy independence by bringing solar energy into the mainstream. Vote Solar has been an active stakeholder in the development of clean, renewable solar power throughout the country.

Connecticut is well positioned to be a solar leader among US states. Connecticut has demonstrated a commitment to renewable energy as an early adopter of state Renewable Portfolio Standards with aggressive target. Connecticut has abundant solar resources- better than world solar leader Germany and ample roof space. And Connecticut has the high electricity rates that bring solar energy costs that much closer to grid parity. With the right policies, Connecticut can become an important player in the solar energy economy.

The benefits of solar photovoltaics are clear: it provides zero-emission electricity at peak times when energy grids are strained and is a mature, reliable technology with warranties for 20 years. Solar also strengthens the utility grid and reduces congestion by delivering energy to American rooftops every day, and solar energy creates more jobs than any other energy technology.[1]

Connecticut can become a solar leader by setting a long term goal for the deployment of solar power on rooftops across the state. Working with Clean Water Action, we respectfully propose a Connecticut Solar Rooftops Initiative. With an expansion and acceleration of the Clean Energy Fund's PV Rebate and On-Site DG programs, Connecticut can create 280MW of solar power by 2020. That's the equivalent of over 100,000 solar homes, and comprises 5% of the state's peak load.

Building a self-sustaining solar industry in-state requires a straightforward program with declining, long term incentives. Installed photovoltaics systems increase and system costs decrease. By establishing a long-term, transparent program of declining, performance-based rebates through 2020, a Connecticut Solar Rooftops Initiative would establish the right business environment to develop a robust homegrown solar industry. The ultimate goal – solar energy becomes mainstream and incentives are no longer needed.

There are two key elements to this program. One, the Connecticut solar program offers incentives for ten years. Long term incentives send a signal to companies that Connecticut has a stable business environment for installing solar. Twelve year incentives allow solar companies time to develop their

1 Kammen, Kapadia, and Fripp, 2004 Putting Renewables to Work: How Many Jobs Can the Clean Energy Industry Generate?

markets and gives new companies the security to enter an industry where demand will be present for years to come. Incentives expire in 2020 as the industry becomes self-sustaining. Two, declining incentives move the solar industry to find cost efficiencies within installation costs. Over half of the total PV system costs is the installation. While PV module costs are set by a world market outside of state control, non-module costs are subject to the influence of local PV programs. Studies in Japan and California have shown that widespread solar adoption and reducing solar incentives correlate with installation cost efficiencies. Declining rebates also create incentive for solar deployment today.

Currently the two largest solar programs are in California and New Jersey. Vote Solar has the benefit of being active in both states. We look to proven success in designing programs.

With strong leadership from state government (especially the Board of Public Utilities) and local solar advocates, New Jersey has put together some of the best pro-solar policies in the country — and as a result, currently has the second-largest solar program in the nation after California. Like Connecticut, New Jersey provides financial support through both a public benefits charge, giving solar system owners a rebate on their capital costs. New Jersey structured the rebates offered to private sector residents to decline in relation to size of the PV system to account for economies of scale among residential and commercial projects. Rebates were designed to give system owners a pay back time of under ten years. Presently, New Jersey is transitioning to the solar renewable energy credits for customer generator incentives. Connecticut can adopt successful elements of New Jersey's solar program such as simple rebate structure, less than 10 year payback time and differing rebate levels for small and large systems.

California has the most experience of any state with solar programs. The state currently has 398 MW installed, with 200 MW installed in 2007 alone. California offers solar rebates to customers through a public benefits charge. In 2006 California adopted the California Solar Initiative (CSI) with the goal of 3000 MW at the cost of $3 billion by 2016. The CSI is structured with declining rebate incentives as studies by University of California Berkeley have shown that cost of solar is correlated with declining rebates.[2]

The idea is to take the best practices from states with most successful solar programs, New Jersey and California and to apply those program design elements to Connecticut to reap the benefits with a Connecticut Solar Rooftops Initiative that creates over 9,000 new jobs, reduction of 300 million pounds of heat trapping CO2, and a hedge against rising utility rates.

We are very pleased to see Connecticut focus on the benefits of deploying solar power in state. We wish to offer our experience in designing effective state solar programs to the states decision markers in the process.

Sincerely,

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2 Wiser, R., M. Bolinger, et al. Letting the Sun Shine on Solar Costs: An Empirical Investigation of Photovoltaic Cost Trends in California available at http://eetd.lbl.gov/ea/EMS/reports/59282-es.pdf